

Company Name \_\_\_\_\_

EPA ID# No. \_\_\_\_\_

Region/Inspector \_\_\_\_\_

Inspection Date \_\_\_\_\_

Indicate:

X Violations

Indicate:

X Satisfactory  
NA Not Applicable

APPENDIX E

TANK SYSTEMS

1. General Information

A. 1. Existing Tank system \_\_\_\_\_ Yes \_\_\_ No \_\_\_  
Installation date on age of tank system \_\_\_\_\_

2. New tank system (tank installed after July 14, 1986) \_\_\_ Yes \_\_\_ No  
Installation date \_\_\_\_\_

B. Type of tank and capacity (e.g. stainless steel, fiberglass)  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. Assessment of Existing Tank System's Integrity - 373-3.10(b)

A. \_\_\_ For each existing tank system that does not have secondary  
containment meeting the requirements of subdivision 373-3.10(d),  
the owner or operator must determine that the tank system is  
not leaking or is unfit for use. Except as provided in  
373-3.10(d)(3) of this subdivision, the owner or operator  
must obtain and keep on file at the facility a written  
assessment reviewed and certified by an independent,  
qualified, professional engineer registered in New York  
that attests to the tank system's integrity by December 25, 1989.  
The certification is consistent with the applicable provisions  
of 373-1.4(a)(5)(iv) - 373-3.10(b)(1). \_\_\_\_\_

B. \_\_\_ The assessment must determine that the tank system is  
adequately designed and has sufficient structural strength  
and compatibility with the wastes to be stored or treated to  
ensure that it will not collapse, rupture, or fail. At a  
minimum, the assessment considers the following - 373-3.10(b)(1): \_\_\_\_\_

1. \_\_\_ design standards, if available, according to which the  
tank and ancillary equipment were constructed -  
373-3.10(b)(2)(i); \_\_\_\_\_

2. \_\_\_ hazardous characteristics of the wastes that have  
been or will be handled - 373-3.10(b)(2)(ii); \_\_\_\_\_

Indicate:

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X Violations

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NA Not Applicable

3. \_\_\_ existing corrosion protection measures - 373-3.10(b)(2)(iii); \_\_\_\_\_
4. \_\_\_ documented age of the tank system, if available (otherwise, an estimate of the age) - 73-3.10(b)(2)(iv); and \_\_\_\_\_
5. \_\_\_ results of a leak test, internal inspections or other tank integrity examination such that: \_\_\_\_\_
- (a) \_\_\_ for non-enterable underground tanks, this assessment must consist of a leak test that is capable of taking into account the effects of temperature variations, tank defection, vapor pockets and high water table effects - 373-3.10(b)(2)(v)(a); and \_\_\_\_\_
- (b) \_\_\_ for other than non-enterable underground tanks and for ancillary equipment, the assessment is either a leak test (as described above) or an internal inspection and/or tank integrity examination certified by an independent P.E. that addresses cracks, leaks, corrosion, and erosion - 373-3.10(b)(2)(v)(b). \_\_\_\_\_

C. \_\_\_ Tank systems that store or treat materials that become hazardous wastes after December 25, 1988, must conduct this assessment within 12 months after the date that the waste becomes a hazardous waste - 373-3.10(b)(3). \_\_\_\_\_

D. \_\_\_ If, as a result of the assessment, a tank system is found to be leaking or unfit for use, the owner or operator has complied with the requirements of 373-3.10(g) - 373-3.10(b)(4). [Complete Item 8] \_\_\_\_\_

3. Assessment of New Tank Systems or Components - 373-3.10(c)

A. \_\_\_ The owner or operator has obtained a written assessment reviewed and certified by an independent P.E. attesting that the system has sufficient structural integrity and is acceptable for the storing and treating of hazardous waste - 373-3.10(c)(1). \_\_\_\_\_

B. \_\_\_ This assessment includes, at a minimum, the following information: \_\_\_\_\_

1. \_\_\_ design standards according to which the system is or will be constructed - 373-3.10(c)(1)(i); \_\_\_\_\_

2. \_\_\_ hazardous characteristics of the wastes to be handled - 373-3.10(c)(1)(ii); \_\_\_\_\_

3. \_\_\_ for new tank systems, or components in which the external shell of a metal tank or any external metal component of the tank system is or will be in contact with the soil or with water, a determination by a corrosion expert of - 373-3.10(c)(1)(iii): \_\_\_\_\_

(a) \_\_\_ factors affecting the potential for corrosion, including but not limited to - 373-3.10(c)(1)(iii)(a). \_\_\_\_\_

Indicate:

Indicate:

X Violations

X Satisfactory  
NA Not Applicable

- (1) \_\_\_ soil moisture content \_\_\_\_\_
- (2) \_\_\_ soil pH \_\_\_\_\_
- (3) \_\_\_ soil sulfides level \_\_\_\_\_
- (4) \_\_\_ soil resistivity \_\_\_\_\_
- (5) \_\_\_ structure to soil potential \_\_\_\_\_
- (6) \_\_\_ influence of nearby underground  
metal structures (e.g., piping) \_\_\_\_\_
- (7) \_\_\_ stray electric current \_\_\_\_\_
- (8) \_\_\_ existing corrosion -  
protection measures \_\_\_\_\_

(b) \_\_\_ the type and degree of external corrosion protection that are needed to ensure the integrity of the tank system during the use of the tank system, consisting of one or more of the following - 373-3.10(c)(1)(iii)(b): \_\_\_\_\_

- (1) \_\_\_ corrosion-resistant material of construction - 373-3.10(c)(1)(iii)(b)(1); \_\_\_\_\_
- (2) \_\_\_ corrosion-resistant coating - 373-3.10(c)(1)(iii)(b)(2); and \_\_\_\_\_
- (3) \_\_\_ electrical isolation devices - 373-3.10(c)(1)(iii)(b)(3); \_\_\_\_\_

4. for underground tank system components that are likely to be affected by vehicle traffic, a determination of design or operational measure that will protect the tank system against potential damage - 373-3.10(c)(1)(iv); \_\_\_\_\_

5. design considerations to ensure that - 373-3.10(c)(1)(v): \_\_\_\_\_

- (a) \_\_\_ tank foundations will maintain the load of a full tank - 373-3.10(c)(1)(v)(a); \_\_\_\_\_
- (b) \_\_\_ tank systems will be anchored to prevent flotation or dislodgement where the tank system is placed in a saturated zone or within a seismic fault zone - 373.10(c)(1)(v)(b); and \_\_\_\_\_
- (c) \_\_\_ tank system will withstand the effects of frost heave - 373-3.10(c)(1)(v)(c); \_\_\_\_\_

C. \_\_\_ The owner or operator of a new tank system ensured that proper handling procedures were followed to prevent damage to the system during installation. Prior to covering, enclosing or placing a new tank system or component in use the system must be inspected for the presence of the following: 373-3.10(c)(2) \_\_\_\_\_

- 1. \_\_\_ weld breaks - 373-3.10(c)(2)(i); \_\_\_\_\_
- 2. \_\_\_ punctures - 373-3.10(c)(2)(ii); \_\_\_\_\_
- 3. \_\_\_ scrapes of protective coatings - 373-3.10(c)(2)(iii); \_\_\_\_\_
- 4. \_\_\_ cracks - 373-3.10(c)(2)(iv); \_\_\_\_\_
- 5. \_\_\_ corrosion - 373-3.10(c)(2)(v); and \_\_\_\_\_
- 6. \_\_\_ other structural damage or inadequate construction or installation - 373.10(c)(2)(vi). \_\_\_\_\_

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X Violations

X Satisfactory  
NA Not Applicable

D. \_\_\_ All discrepancies have been remedied before the tank system is covered, enclosed, or placed in use - 373-3.10(c)(2); \_\_\_

E. \_\_\_ New tank systems or components and piping that are put underground and that are backfilled have been provided with a backfill material that is a non-corrosive, porous, homogeneous substance and that is carefully installed so that the backfill is placed completely around the tank and compacted to ensure that the tank and piping are fully and uniformly supported - 373-3.10(c)(3); \_\_\_

F. \_\_\_ All new tanks and ancillary equipment have been tested for tightness prior to being covered, enclosed, or placed in use. If a tank system was found not to be tight, all repairs necessary to remedy the leaks in the system were performed prior to the tank system being covered, enclosed, or placed in use - 373-3.10(c)(4); \_\_\_

G. \_\_\_ Ancillary equipment has been supported and protected against physical damage and excessive stress due to settlement, vibration, expansion or contraction - 373-3.10(c)(5); \_\_\_

H. \_\_\_ The owner or operator has provided the type and degree of corrosion protection necessary, based on the information checked in items 3B3(a) and (b), to ensure the integrity of the tank system during use of the tank system. The installation of a corrosion protection system that is field fabricated must be supervised by an independent corrosion expert to ensure proper installation - 373-3.10(c)(6); \_\_\_

I. \_\_\_ The owner or operator has obtained and kept on file at the facility written statements by those persons required to certify the design of the tank system and supervise the installation of the tank system in accordance with Items (C) through (H) above to attest that - 373-3.10(c)(7):

1. \_\_\_ the tank system was properly designed and installed; and \_\_\_

2. \_\_\_ any necessary repairs were performed; and \_\_\_

J. \_\_\_ The written statements include the certification signed by the professional engineer as required by 373-1.4(a)(5)(iv) - 373-3.10(c)(1) & (7)/373-1.4(a)(5)(iv). \_\_\_

4. Secondary Containment Requirements - 373-3.10(d)

A. \_\_\_ Secondary containment systems must be designed, installed and operated to prevent any migration of wastes or accumulated liquids out of the system to the soil, groundwater or surface water at any time during the use of tank system - 373-3.10(d)(2)(i). \_\_\_

B. \_\_\_ Secondary containment systems must be capable of detecting and collecting releases of accumulated liquids until the collected material is removed - 373-3.10(d)(2)(ii). \_\_\_

C. At a minimum, the containment system is:

Indicate:

Indicate:

X Violations

X Satisfactory  
NA Not Applicable

- 1.  constructed of or lined with materials that are compatible with the wastes to be placed in the tank system and must have sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrological forces), physical contact with the waste to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation (including stresses from nearby vehicular traffic) - 373-3.10(d)(3)(i);
- 2.  placed on a foundation or base capable of providing support to the secondary containment system, providing resistance to pressure gradients above and below the system, and preventing failure due to settlement, compression, or uplift - 373-3.10(d)(3)(ii);
- 3.  provided with a leak detection system that is designed and operated so that it will detect the failure of either the primary and secondary containment structure or any release of hazardous waste or accumulated liquid in the secondary containment system with 24 hours, or at the earliest practicable time if the existing detection technology or site conditions will not allow detection of a release within 24 hours - 373-3.10(d)(3)(iii); and
- 4.  sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation. Spilled or leaked waste and accumulated precipitation must be removed from the secondary containment system within 24 hours, or in as timely a manner as is possible to prevent harm to human health or the environment, if removal of the released waste or accumulated precipitation cannot be accomplished within 24 hours - 373-3.10(d)(3)(iv).

(Note: If the collected material is a hazardous waste under Part 371 of this title, it is subject to management as a hazardous waste in accordance with all applicable requirements of Parts 372 through 374 of this Title. If the collected material is discharged through a point source to waters of the United States, it is subject to the requirements of Parts 700, 701, and 750 of this Title. If discharged to Publicly Owned Treatment Works (POTW's), it is subject to the requirements of Section 307 of the Clean Water Act, as amended. If the collected material is released to the environment, it may be subject to the reporting requirements of 40 CFR Part 302).

D. Secondary containment for tanks includes one or more of the following devices: 373-3.10(d)(4).

- 1.  a liner (external to the tank) [Complete Item E1];
- 2.  a vault [Complete Item E2];
- 3.  a double-walled tank [Complete Item E3]; or
- 4.  an equivalent device as approved by the Commissioner.

E. In addition to Items A through D above, secondary containment systems must meet the following requirements:

- 1. External liner systems must be - 373-3.10(d)(5)(i):

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X Violations

X Satisfactory  
NA Not Applicable

- (a) \_\_\_ designed or operated to contain 100 percent of the capacity of the largest tank or the volume of all interconnected tanks, whichever is greater, within its boundary - 373-3.10(d)(5)(i)(a); \_\_\_
- (b) \_\_\_ designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event - 373-3.10(d)(5)(i)(b); \_\_\_
- (c) \_\_\_ free of cracks or gaps - 373-3.10(d)(5)(i)(c). \_\_\_
- (d) \_\_\_ designed and installed to completely surround the tank and to cover all surrounding earth likely to come into contact with the waste if released from the tanks (i.e. capable of preventing lateral as well as vertical migration of the waste. For onground tanks, the external liner system must also encompass the bottom of the tank) - 373-3.10(d)(5)(i)(d); \_\_\_
- (e) \_\_\_ external concrete liners must be constructed with chemical-resistant water stops in place at all joints (if any) - 373-3.10(d)(5)(i)(e); and \_\_\_
- (f) \_\_\_ external concrete liners must be provided with an impermeable interior coating that is compatible with the stored waste and that will prevent migration of waste into the concrete - 373-3.10(d)(5)(i)(f). \_\_\_

2. Vault systems must be - 373-3.10(d)(5)(ii):

- (a) \_\_\_ designed or operated to contain 100 percent of the capacity of the largest tank or the volume of all interconnected tanks, whichever is greater, within its boundary - 373-3.10(d)(5)(ii)(a); \_\_\_
- (b) \_\_\_ designed or operated to prevent run-on or infiltration or precipitation into the secondary containment system unless the collection system has sufficient capacity to contain run-on or infiltration. Such additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event - 373-3.10(d)(5)(ii)(b); \_\_\_
- (c) \_\_\_ constructed with chemical-resistant water stops in place at all joints (if any) - 373-3.10(d)(5)(ii)(c); \_\_\_
- (d) \_\_\_ provided with an impermeable interior coating or lining that is compatible with the stored waste and that will prevent migration of waste into the concrete - 373-3.10(d)(5)(ii)(d). \_\_\_
- (e) \_\_\_ provided with an exterior moisture barrier or be \_\_\_

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X Violations

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X Satisfactory  
NA Not Applicable

otherwise designed or operated to prevent migration of moisture into the vault, if the vault is subject to hydraulic pressure - 373-3.10(d)(5)(ii)(f); and

(f) \_\_\_ provided with a means to protect against the formation of and ignition of vapors within the vault, if the waste being stored or treated - 373-3.10(d)(5)(ii)(e):

(1) meets the definition of ignitable waste under section 371.3(b); or

(2) meets the definition of reactive waste under section 371.3(d) and may form an ignitable or explosive vapor.

3. Double-walled tanks must be - 373-3.10(d)(5)(iii):

(a) \_\_\_ designed as an integral structure (i.e., an inner tank within an outer shell) so that any release from the inner tank is contained by the outer shell - 373-3.10(d)(5)(iii)(a);

(b) \_\_\_ protected, if constructed of metal, from both corrosion of the primary tank interior and the external surface of the outer shell - 373-3.10(d)(5)(iii)(b); and

(c) \_\_\_ provided with a built-in, continuous leak detection system capable of detecting a release within 24 hours or at the earliest practicable time, if the owner or operator can demonstrate to the commissioner, and the commissioner concurs, that the existing leak detection technology or site conditions will not allow detection of a release within 24 hours - 373-3.10(d)(5)(iii)(c).

F. Ancillary Equipment - 373-3.10(d)(6).

1. \_\_\_ Ancillary equipment must be provided with full secondary containment (e.g., trench, jacketing, double-walled piping) that meets the requirements of Items 4 A-C except for: 373-3.10(d)(6)

(a) \_\_\_ aboveground piping (exclusive of flanges, joints, valves and connections) that are visually inspected for leaks on a daily basis; 373-3.10(d)(6)(i)

(b) \_\_\_ welded flanges, welded joints, and welded connections that are visually inspected for leaks on a daily basis; 373-3.10(d)(6)(ii)

(c) \_\_\_ sealless or magnetic coupling pumps and sealless valves that are visually inspected for leaks on a daily basis; and - 373-3.10(d)(6)(iii)

(d) \_\_\_ pressurized aboveground piping systems with automatic shut-off devices (e.g., excess flow check valves, flow metering

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X Violations

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NA Not Applicable

shutdown devices, loss of pressure actuated  
shut-off devices) that are visually inspected for leaks  
on a daily basis - 373-3.10(d)(6)(iv).

5. Annual Leak Test or Tank Integrity Examination - 373-3.10(d)(9).

- A.  For non-enterable underground tanks without secondary containment, a leak test that meets the requirements of 373-3.10(b)(2)(v) must be conducted at least annually [Complete Item 2 B5] - 373-3.10(d)(9)(i). \_\_\_\_\_
- B.  For other than non-enterable underground tanks and for all ancillary equipment without secondary containment, an annual leak test, as required in 373-3.10(b)(2)(v), or an internal inspection or other tank integrity examination by an independent, qualified, professional engineer registered in New York that addresses cracks, leaks, corrosion and erosion is conducted at least annually. The owner or operator must remove the stored waste from the tank, if necessary, to allow the condition of all internal tank surfaces to be assessed - 373-3.10(d)(9)(ii). \_\_\_\_\_
- C.  The owner or operator must maintain on file at the facility a record of the results of the tank assessments or leak test as required - 373-3.10(d)(9)(iii). \_\_\_\_\_
- D.  If a tank system or component is found to be leaking or unfit-for-use as a result of the leak test or assessment required, the owner or operator must comply with the requirements of 373-3.10(g). [Complete Item 8.] - 373-3.10(d)(9)(iv). \_\_\_\_\_

6. General Operating Requirements - 373-3.10(e)

- A.  Hazardous wastes or treatment reagents must not be placed in a tank system if they could cause the tank, its ancillary equipment, or the secondary containment system to rupture, leak, corrode, or otherwise fail - 373-3.10(e)(1). \_\_\_\_\_
- B.  The owner or operator must use appropriate controls and practices to prevent spills and overflows from tank or secondary containment systems. These include at a minimum - 373-3.10(e)(2): \_\_\_\_\_
1.  spill prevention controls (e.g., check valves, dry discount couplings) - 373-3.10(e)(2)(i); \_\_\_\_\_
2.  overflow prevention controls (e.g., level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standby tank) - 373-3.10(e)(2)(ii); and \_\_\_\_\_
3.  maintenance of sufficient freeboard in uncovered tanks to prevent overtopping by wave or wind action or by precipitation - 373-3.10(e)(2)(iii). \_\_\_\_\_
- C.  The owner or operator must comply with the requirements of 373-3.10(g) if a leak or spill occurs in the tank system [Complete Item 8.] - 373-3.10(e)(3). \_\_\_\_\_

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X Violations

X Satisfactory  
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D. \_\_\_ The owner or operator must mark all tanks with the words "Hazardous Waste" and with other words that identify the contents of the tanks. For underground tanks, the markings must be placed on a sign in the area above the tank - 373-3.10(e)(4). \_\_\_\_\_

7. Inspections: - 373-3.10(f)

A. \_\_\_ The owner or operator must inspect, where present, at least once each operating day - 373-3.10(f)(1): \_\_\_\_\_

1. \_\_\_ overfill/spill control equipment (e.g., waste-feed cutoff systems, bypass systems, and drainage systems) to ensure that it is in good working order - 373-3.10(f)(1)(i); \_\_\_\_\_

2. \_\_\_ the above ground portions of the system, if any, to detect corrosion or releases of waste - 373-3.10(f)(1)(ii); \_\_\_\_\_

3. \_\_\_ data gathered from monitoring equipment and leak-detection, equipment, (e.g., pressure and temperature gauges, monitoring wells) to ensure that the tank system is being operated according to its design - 373-3.10(f)(1)(iii); and \_\_\_\_\_

4. \_\_\_ the construction materials and the area immediately surrounding the externally accessible portion of the tank system including secondary containment structures (e.g., dikes) to detect erosion or signs of releases of hazardous waste (e.g., wet spots, dead vegetation) - 373-3.10(f)(1)(iv). \_\_\_\_\_

(Note: Section 373-2.2(g)(3) of this Subpart requires the owner or operator to remedy any deterioration or malfunction he finds. Subdivisions (g) of this section requires the owner or operator to notify the commissioner within 24 hours of confirming a release. Also, 40 CFR Part 302 may require the owner or operator to notify the National Response Center of a release.)

B. \_\_\_ The owner or operator must inspect cathodic protection systems, if present, according to, at a minimum, the following schedule to ensure that they are functioning properly - 373-3.10(f)(2): \_\_\_\_\_

1. \_\_\_ the proper operation of the cathodic protection system must be confirmed within six months after initial installation, and annually thereafter - 373-3.10(f)(2)(i); and \_\_\_\_\_

2. \_\_\_ all sources of impressed current must be inspected and/or tested, as appropriate, at least bimonthly (i.e. every other month) - 373-3.10(f)(2)(ii). \_\_\_\_\_

C. \_\_\_ The owner or operator must document in the operating record of the facility the inspections required in Items 7A and 7B above - 373-3.10(f)(3). \_\_\_\_\_

8. Response to leaks or spills and disposition of leaking or unfit-for-use tank systems - 373-3.10(g)

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X Violations

X Satisfactory  
NA Not Applicable

- A.  A tank system or secondary containment system from which there has been a leak or spill, or which is unfit for use, has been removed from service immediately.
- B.  The owner or operator has satisfied the following requirements:
1.  Cessation of use; prevent flow or addition of wastes. The owner or operator immediately stopped the flow of hazardous waste into the tank system or secondary containment system and inspected the system to determine the cause of the release - 373-3.10(g)(1);
2.  Removal of waste from tank system or secondary containment system - 373-3.10(g)(2):
- (a)  If the release was from the tank system, the owner or operator, within 24 hours after detection of the leak or, if the owner or operator demonstrated that this was not possible, at the earliest practicable time, removed as much of the waste as was necessary to prevent further release of hazardous waste to the environment and to allow inspection and repair of the tank system to be performed - 373-3.10(g)(2)(i).
- (b)  If the release was to a secondary containment system, all released materials must be removed within 24 hours, or in as timely a manner as is possible, to prevent harm to human health and the environment - 373-3.10(g)(2)(ii).
3.  Containment of visible releases to the environment. The owner or operator immediately conducted a visual inspection of the release and, based upon that inspection - 373-3.10(g)(3):
- (a)  prevented further migration of the leak or spill to soils or surface water - 373-3.10(g)(3)(i); and
- (b)  removed, and properly disposed of, any visible contamination of the soil or surface water - 373-3.10(g)(3)(ii).
4.  Notifications and reports - 373-3.10(g)(4).
- (a)  Any release to the environment, except as provided in (b) below, was reported to the Commissioner within 24 hours of detection - 373-3.10(g)(4)(i).
- (b)  A leak or spill of hazardous waste that is less than or equal to a quantity of one pound; and immediately contained and cleaned-up is exempted from these requirements - 373-3.10(g)(4)(ii).
- (c)  Within 30 days of detection of a release to the environment, a report containing the following information was submitted to the Commissioner - 373-3.10(g)(4)(iii):

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- (1) \_\_\_ the likely route of migration of the releases; \_\_\_\_\_
  - (2) \_\_\_ the characteristics of the surrounding soil (soil composition, geology, hydrogeology, climate); \_\_\_\_\_
  - (3) \_\_\_ the results of any monitoring or sampling conducted in connection with the release, (if available). If sampling or monitoring data relating to the release are not available within 30 days, these data were submitted to the Commissioner as soon as they became available; \_\_\_\_\_
  - (4) \_\_\_ the proximity to downgradient drinking water, surface water, and population areas; and \_\_\_\_\_
  - (5) \_\_\_ a description of response actions taken or planned. \_\_\_\_\_
5. \_\_\_ Provision of secondary containment, repair, or closure. Unless the owner or operator satisfies the requirements of Items (a) through (b) below, the tank system must be closed in accordance with 373-3.10(h). [Complete Items 9A through 9C.] - 373-3.10(g)(5)(i). \_\_\_\_\_
- (a) \_\_\_ If the cause of the release was a spill that has not damaged the integrity of the system, the owner or operator may return the system to service as soon as the released waste is removed and repairs, if necessary, are made - 373-3.10(g)(5)(ii); \_\_\_\_\_
  - (b) \_\_\_ If the cause of the release was a leak from the primary tank system into the secondary containment system, the system must be repaired prior to returning the tank system to service - 373-3.10(g)(5)(iii); \_\_\_\_\_
  - (c) \_\_\_ If the source of the release was a leak to the environment from a component of a tank system without secondary containment, the owner or operator must provide the component of the system from which the leak occurred with secondary containment that satisfies the requirements of 373-3.10(d) [Complete Items 4A through 4F] before it can be returned to service, unless the source of the leak is an aboveground portion of a tank system. If this source is an aboveground component that can be inspected visually, the component must be repaired and may be returned to service without secondary containment as long as the requirements of 373-3.10(g)(6) [Complete Item 8B6.] are satisfied. If a component is replaced, that component must satisfy the requirements for new tanks systems or components in accordance with 373-3.10(c) and (d). [Complete Items 3 and 4.] Additionally, if a leak has occurred in any portion of a tank system component that is not readily accessible for visual inspection (e.g. the bottom of an inground or onground tank), the entire component must be provided with secondary containment in accordance with 373-3.10(d) [Complete Items 4A through 4F.] prior to being \_\_\_\_\_

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X Violations

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returned to use - 373-3.10(g)(5)(iv).

6. \_\_\_ Certification of major repairs. If the owner or operator \_\_\_  
has repaired a tank system in accordance with 373-3.10(g)(5)  
[See Item 8B5 above], and the repair has been extensive  
(e.g. installation of an internal liner; repair of a  
ruptured primary containment or secondary containment vessel),  
the tank system must not be returned to service unless the  
owner or operator has obtained a certification, in accordance  
with 373-1.4(a)(5)(iv), by an independent, qualified,  
professional engineer registered in New York that the  
repaired system is capable of handling hazardous wastes  
without release for the expected life of the system. This  
certification must be submitted to the Commissioner within  
seven days after returning the tank system to use [Complete  
Item 2B.] - 373-3.10(g)(6).
9. Closure and Post-Closure Care: - 373-3.10(h)
- A. \_\_\_ At closure of a tank system, the owner or operator must \_\_\_  
remove or decontaminate all waste residues, contaminated  
containment system components (liners, etc.) contaminated  
soils, and structures and equipment contaminated with  
waste, and manage them as hazardous waste, unless they are  
not hazardous waste under 371.1(d)(4) - 373-3.10(h)(1).
- B. \_\_\_ If the owner or operator demonstrates that not all \_\_\_  
contaminated soils can be practicably removed or  
decontaminated as required in paragraph 373-3.10(h)(1)  
[See Item 9A above], then the owner or operator must close  
the tank system and perform post-closure care in accordance  
with the closure and post-closure care requirements that  
apply to landfills [section 373-3.14(d)]. In addition, for  
the purposes of closure, post-closure, and financial  
responsibility, such a tank system is then considered to be  
a landfill, and the owner or operator must meet all of the requirements  
for landfills specified in sections 373-3.7  
and 3.8. - 373-3.10(h)(2).
- C. \_\_\_ If an owner or operator has a tank system which does not \_\_\_  
have secondary containment that meets the requirements of  
373-3.10(d)(1) through (d)(6) [See Items 4A through 4F] and  
which is not exempt from the secondary containment requirements through  
a variance granted in accordance with 373-3.10(d)(7),  
then - 373-3.10(h)(3):
1. \_\_\_ The closure plan for the tank system must include both \_\_\_  
a plan for complying with 373-3.10(h)(1) [See Item 9A.)  
and a contingency plan for complying with 373-3.10(h)(2)  
[See Item 9B - 373-3.10(h)(3)(i).
2. \_\_\_ A contingent post-closure plan for complying with \_\_\_  
373-3.10(h)(2) [See Item 9B] must be prepared and  
submitted as part of the permit application -  
373-3.10(h)(3)(ii).
3. \_\_\_ The cost estimates calculated for closure and post- \_\_\_

Indicate:

Indicate:

X Violations

X Satisfactory  
NA Not Applicable

closure care must reflect the costs of complying with the contingent closure plan and the contingent post-closure plan, if these costs are greater than the costs of complying with the closure plan prepared for the expected closure under 373-3.10(h)(1) [See Item 9A.] - 373-3.10(h)(3)(iii).

- 4.  Financial assurance must be based on the cost estimates provided in 373-3.10(h)(3)(iii) [See Item 9C3 above.] - 373-3.10(h)(3)(iv).
- 5.  For the purposes of the contingent closure and post-closure plans, such a tank system is considered to be a landfill, and the contingent plans must meet all of the closure, post-closure, and financial responsibility requirements for landfills under sections 373-3.7 and 3.8 of this Subpart - 373-3.10(h)(3)(v).

10. Ignitable or Reactive Waste - 373-3.10(i)

- A.  Ignitable or reactive waste is not placed in a tank unless:

  - 1.  the waste is treated, rendered or mixed before or immediately after placement in the tank system so that the resulting waste, mixture or dissolved of material is no longer ignitable or reactive, and - 373-3.10(i)(1)(i)(a);
  - 2.  the treatment, storage, or disposal of ignitable or reactive or reactive waste, and the mixture or commingling of incompatible wastes and materials, is conducted so that it does not - 373-3.10(i)(1)(i)(b)/ 373-3.2(h)(2):

    - (a)  generate extreme heat or pressure, fire or explosions, or violent reactions;
    - (b)  produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health;
    - (c)  produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;
    - (d)  damage the structural integrity of the device or facility containing the waste; or
    - (e)  through other like means threaten human health or the environment;

  - 3.  the waste is stored or treated in such a way that it is protected from any material or conditions that may cause the waste to ignite or react - 373-3.10(i)(1)(ii); or
  - 4.  the tank system is used solely for emergencies - 373-3.10(1)(1)(iii).

- B.  The owner or operator of a facility where ignitable or reactive waste is stored or treated in tanks must comply

Indicate:

Indicate:

X Violations

X Satisfactory  
NA Not Applicable

with the National Fire Protection Association's requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjoining property line that can be built upon. - 373-3.10(i)(2).

11. Special Requirements for Incompatible Wastes - 373-3.10(j)

- A.  Incompatible wastes, or incompatible waste and materials, must not be placed in the same tank system, unless 373-3.2(h) [Complete Item 10A.2.] is complied with - 373-3.10(j)(1).
- B.  Hazardous waste must not be placed in a tank system that has not been decontaminated and that previously held an incompatible waste or material, unless 373-3.2(h)(2) [Complete Item 10A.2.] is complied with - 373-3.10(j)(2).

12. Waste Analysis and Trial Tests - 373-3.10(k)

- A.  Waste analysis and trial tests. In addition to performing the waste analysis required in 373-3.2(d), the owner or operator must, whenever a tank system is to be used to treat chemically or to store a hazardous waste that is substantially different from waste previously treated or stored in that tank system; or treat chemically a hazardous waste with a substantially different process than previously used in that tank system:
1.  conduct waste analyses and trial treatment or storage tests (e.g., bench-scale or pilot-plant scale tests) - 373-3.10(k)(1); or
2.  obtain written, documented information on similar waste under similar operating conditions to show that the proposed treatment or storage will meet the requirements of 373-3.10(e)(1) [Complete Items 6A.] - 373-3.10(k)(2).

13. Air Emission Standards

- A.  The owner or operator shall manage all hazardous waste placed in a tank in accordance with the applicable requirements of sections 373-3.27, 373-3.28 and 373-3.29 of this Subpart - 373-3.10(m) [Complete Appendix X].